Global Indicators Workshop on Community Access to ICTs

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Statistics and Indicators on ICTs in Maldives

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INTRODUCTION

Telecommunications and Information Technology are amongst the fastest growing commercial sectors in the world. In particular, the last decade has seen rapid developments in information technology and the ways in which technology can be utilised. The growth of the Internet has revolutionised the ways of doing business, and socialising too.

Despite the Internet's democratizing potential, it has been recognized from the outset of the digital revolution that there is a very real danger that the world will be divided into the "information rich" and the "information poor", or in more common terminology, "*The Digital Divide*".

One of the immediate measures taken towards minimsing the digital divide by many countries is to establish shared means of ICT access to communities. This paper addresses the following aspects:

- Initiatives taken by the Government and the industry towards promoting community access centres
- Measures taken in creating awareness on the use and benefits of ICTs.
- Indicators on ICTs and methods use to measure or estimate the levels of ICT usage

The digital divide exists not only between countries and regions but also within most countries, in the form of a wide disparity between urban and rural inhabitants. The plans and initiatives presented in the paper address both the 'urban-rural divide', and the national digital-divide issue on the whole.

MALDIVES AT A GLANCE

The Maldives is an archipelago of about 1190 islands. These islands are grouped into natural coral atolls. The population of Maldives was around 270,000 in the year 2000, spread among 200 inhabited islands. Another 83 islands are developed exclusively as tourist resort hotels, while the rest of the islands are uninhabited. A quarter of the population live on the island capital Male'. There is an inward migration trend from the other inhabited islands to Male' as people seek employment and better education. Those living outside Male' depend on fishing, agriculture, and other primary industry – related activities for their lively hood. Many families depend on money transfers from family members employed in Male' or on tourist resorts in the central region. The de-centralisation of economic activities away from Male' is hampered by lack of basic infrastructure and poorly developed inter island transportation system. With these geographical and economical characteristics Maldives has a huge potential to take full advantage of ICT.

CURRENT SITUATION

At present Dhiraagu, a privatized joint venture between the Government of Maldives and Cable & Wireless provides all telecommunications services, including the Internet. Competition was introduced in 2003 with issue of a second ISP licence to Focus Infocom.

The Ministry of Communications, Science & Technology (MCST) is responsible for the overall policies for the ICT sector. The Telecommunications Authority of Maldives has the mandate to develop and regulate the telecom sector which covers Internet services as well.

Prior to 1995 telephone service was available only to a few islands. However, by the year 2000, all inhabited islands had access to communication by telephone. In addition, GSM mobile services are available in the capital and nearby atolls. Internet access is available throughout the country, mainly in the form of dialup. Leased line access is also available targeted at large to the businesses and government offices. ISDN access has also been introduced. Dhiraagu offers broadband access using DSL technology in Male', while Focus Infocom provides its broadband using both wireless and cable.

Maldives, although physically isolated, is no exception in terms of the developments in the Information and Communications Sector. More and more people are becoming increasingly aware of information technology and its potential for socio economic activities. Mobile telephony has now become a way of life. The Internet, ever since its introduction in 1996, is becoming increasingly popular both in the residential and commercial markets. The computer has become the most dependable tool for businesses and government administrations. For the residential arena too, the computer is becoming a part of life. It may soon takeover the place owned by television and other means of entertainment.

With the increased usage of Internet in the present day, customers demand connection speeds faster than the ones currently being offered. The pricing, affordability, accessibility and speed of Internet services are key issues of present concern. In urban areas where there is ample number of telephones or other means of access, the demand is for higher speeds rather than availability. In the rural areas, the issue is the means to access.

The teledensity in the urban area is 28.9 while in the atolls rural areas is very low at 3.5 (September 2004 statistics) SinceA dialup is the primary means of access to the Internet, accessibility of the Internet in the rural areas is very limited due to the lack of telephone lines. This leaves community centres to fill in the gap of providing internet access to the masses.

ACCESS AND AFFORDABILITY

There were an estimated 10'000 PCs in the country at the end of 2002. There is no local assembly and all PCs are imported. Import taxes on PCs are a moderate five per cent compared to an average of 21 per cent for other products. According to the *Population and Housing Census 2000*, the percentage of homes with a personal computer (PC) was 6.2. Like other ICT, the geographic distribution of PCs is uneven. Home PC penetration in Male' is 21.9 per cent compared to 1.3 per cent in the atolls.
It is estimated that approximately 14 per cent of homes in Male' had Internet access in October 2001 suggesting that more than half the home PCs have a connection.[1] Dhiraagu has had a program since 2000 with leading vendors to sell PCs already Internet ready.[2] Dhiraagu offers nationwide "pay as you go" dial-up Internet access, charging the same rate

[1] Ministry of Communication, Science and Technology. *e-Maldives: The Republic of Maldives National Information and Communications Technology Policy*. Draft. 2003.

[2] Dhiraagu. 19 September 2000. "Personal Computers Available "Dhivehinet-Ready" from Leading Maldives PC Vendors." *Press Release*. http://www.dhiraagu.com.mv/newsdesk/index.php?newsid=159 [Accessed 5 February 2004].

regardless of location. This means that dial-up Internet access is available anywhere in the Maldives where there is a telephone line. Around 500 users are also utilizing their mobile phones to access the Internet.

There are no official surveys on the number of Internet users in the country. Dhiraagu estimates that there were 15'000 users at the end of 2002 for a penetration of 5.3 per cent of the population. The estimated number of users is based on the following methodology:

- The number of telephone lines using the Dhiraagu "pay as you go" dial-up service is around 5'000 each month.[3] Dhiraagu estimates that on average two people use each line. That makes 10'000 users.
- Other customers with dedicated and broadband subscriptions (i.e., 66 Internet leased lines and 683 ADSL subscribers at September 2004) such as government offices and large businesses many of which have LANs. This accounts for another estimated 5'000 users.

Internet penetration in the Maldives ranks it number one among South Asian nations, second among LDCs and 14th out of 38 small island states. The figure of 15'000 Internet users would not include people using Internet cafes. Thus, it is a conservative figure. A survey of the number of Internet users is critical to more accurately determine Internet usage in the country and to explore the digital divide in greater detail. It is estimated that 80 per cent of telephone lines used for Internet access are in Male'.

Dhiraagu offers several different dialup Internet packages, all of which include telephone usage charges. Internet on demand—to a toll-free number—is Rf 0.55 (US¢ 0.4) per minute. This is the most popular option and used by the majority of dial-up users. Several monthly packages are available with per minute charges ranging from Rf 0.42 to Rf 0.33. These packages are used by less than 20 per cent of dial-up users. The entry-level package is Rf 100 (US$ 7.78) for four hours of usage. This amounts to 4.1 per cent of per capita income. Though not exorbitant, this package does not provide many hours of use inhibiting experimentation and the development of a vibrant Internet community. In terms of regional comparisons, Internet prices are high in the Maldives. The country has the second highest prices in South Asia, more than twice as much as what most other countries in the region charge.

There are a number of public Internet facilities. Dhiraagu has eight Internet cafes. Charges at its café in Male' are Rf 10 (US$ 0.78) for ten minutes. In addition, Dhiraagu provides a 75 per cent discount for educational institutions and encourages private companies to set up Internet cafes. There are 73 islands as at October 2004, using dial-up Internet access, typically provided as a community centre type of operation. The monthly subscription is Rf 200 per month (normally 2'000 for non-residential islands) and RF 1'720 for the installation. Dhiraagu also gives a ten percent discount for calls.

INITIATIVES TO PROMOTE THE USE AND INCREASE AWARENESS OF ICTs

Summarised below are some of the activities to promote and increase awareness in ICTs.

[3] This service requires no registration and is available from any telephone line in the country at the same rate. Speed is 56 kbps in Male' and 28 kbps in other areas.

Liberalisation of the ISP Market

The process of introducing a second ISP was completed in 2003. In addition to Dhiraagu, Focus Infocom now provides broadband Internet in the capital Male' area. Their services will be rolled out to other parts of the country.

By introducing another ISP, it is expected the Internet will become more affordable and accessible to the public at large.

Multipurpose Telecentres

To address the issue of low telephone penetration in the islands, a project is being implemented to introduce multipurpose telecentres in island communities. Under this project two telecentres will be piloted in two different islands to prove the feasibility of the concept. The telecentres will be operated on a commercial basis.

During the set-up phase of the telecentres, the community will be introduced to the potential applications of the Internet and online services such as email, information acquisition, distance learning and telemedicine.

Telephone lines at discount rates

One of the reasons for the low penetration of telephones in the islands is the relatively high installation charges and monthly fees. To make the Internet more affordable to the community at large, the current telephone service provider / ISP has offered one telephone line at very preferential rates to every island community. The community could use this line to operator a cyber café.

Awareness on Internet

A number of activities are conducted in order the increase the awareness of Internet among the public. Some of these include:

Internet Fairs

Internet fairs are organized on a regular basis, targeting people of all ages. In these fairs free access to Internet is provided. In addition, IT companies exhibit and demonstrate the latest computer equipment and related devices. The fairs have proven to be very popular especially among students and people of younger ages

Web Design Competition

Another step towards increasing awareness and improving the skills of Internet is the competition to design websites. This annual competition is organized in different categories, including some for students.

Free Internet Account

Internet access is charged by the usage time on the telephone line used. In addition the user needs to have an Internet account with the ISP, which is subject to further charges. Of late, an open access account has been provided to make the Internet accessible to anyone with a

telephone line. With the free user name and password available under this account, anyone could log in to the Internet any time.

IT in the educational curriculum

The government sees the importance of IT and as such has incorporated it in the educational curriculum. The national target is to make every student PC literate. Under this programme, all schools in the capital, and some in the islands have advanced computer labs. The training programmes within the schools are mainly run in collaboration with the local IT training industry.

Internet leased lines, ISDN and DSL lines are available to educational institutions at very preferential rates.

Affordability of Computer Equipment

One of the ingredients in increasing the usage of IT, especially in the residential arena is the affordability of computers. To make computers more affordable, the import duty on computer equipment has been reduced significantly. Prior to 2000, all computer equipment imported was subject to 20% import duty. The figure now stands at a very nominal value of 5%.

INDICATORS ON ICTs

Dialup and broadband users

As discussed earlier, there are challenging issues in measuring the number of internet users. The majority of users are believed to be dialup users. Since dialup access is not controlled by user names and passwords, anyone with a telephone access can use dialup. Hence the number of users is estimated based on the number of telephone lines used for dialup access.

Users in companies with leased line or broadband access is again difficult to estimate. One way to tackle this is to find out the average number of employees and consider a proportion of this figure as the number of internet users.

Community Access Centres / Cyber café's

Statistics on the number of community access centres and cyber cafes are maintained via two key sources of information:

> Registration Database: All cyber café's and internet access centres are required to be approved and registered by TAM. Although TAM does not police the registration of cybercafés it is believed that almost all cybercafés and internet access centres are registered.
>
> Take-up of Discount Internet Line: Due to the significant discounts on the telephone line fees, all community access centres use this discounted line from Dhiraagu. Dhiraagu provides regular updates to TAM on the take-up of this scheme.

Annex 1 provides the statistics on ICT indicators as formulated by ITU. For the purposes of this statistics, each inhabited island is regarded as a locality. A further population bracket of 2500-10,000 was added as some islands have populations over 2,500.

Annex 2 shows the current Telecom statistics of Maldives as at end September 2004.

CONCLUSION

This paper has looked at the situation of the access to ICTs in the Maldives environment. Policies and initiatives to promote the use and increase the awareness of ICTs were discussed. Challenges in maintaining accurate statistics on the use of ICTs were presented. Ways of defining and collecting information on ICT indicators on community access were addressed.

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Return questionnaire to Ms. Vanessa Gray (email: vanessa.gray@itu.int, Fax: +41 22 730 6449) before October 15th

PERCENTAGE OF THE POPULATION WITH ACCESS TO A PUBLIC INTERNET ACCESS CENTRE (PIAC)*

				PIAC coverage							
	Locality by number of inhabitants	Number of localities	Population	ISP		Private		Total		Percentage	
				Localities	Population	Localities	Population	Localities	Population	Localities	Population
Total											
Urban	> 500 000 50 000-499 999 10 000-49 999 2 500-9 999 1-2499	1 2	74,069 5891	1	74,069	1 1	74069 4291	1 1	74069 4291	100 1	100 1 72
Rural	2500-10,000 1 000-2 499 500-999 100-499 1-99	9 48 66 78 -	43,694 71,535 48,608 24,689 -	3 4 1 -	20,935 8027 921 -	7 26 15 8	32169 39573 11810 2805	9 29 15 8 -	43694 45899 11810 2805 -	100 60.4 22.7 10.2	100 64.2 24.3 11.4

* For a detailed definition of the term PIAC, refer to Annex VII.
Note: When entering the data in the table, countries with different categories/classifications/definitions (for example the population size for urban and rural) should indicate this and, if necessary, adapt the table.

PIACs BY TYPE				***USERS BY TYPE***			
Total	**Digital Community Centers (DCC)**	**Other (PIAC) ** **	**Education Centers *** **	**Total**	**Digital Community Centers (DCC)**	**Other (PIAC)**	**Education Centers *** **
66	**52**	**14**	**-**	**-**	**-**	**-**	-

** For a detailed definition of the terms PIAC and DCC refer to Annex VII.
*** Only when open to the general public, outside teaching hours.

USAGE AND INFRASTRUCTURE INDICATORS

	Potential Population (1)	Target Population for DCC services (2)	Actual Usage (3)	Average DCC Usage Rate (4)	DCC Density in Rural Areas (5)	DCC Density in Urban Areas (6)	Number of computers in DCC´s
TOTAL	201912	-	Approx. 10,000-15,000	-	0.3	0.02	-

Note:

1) Potential population = A potential DCC user is anyone of age 6 years or more.
2) Target population for DCC services = Potential population minus Number of non-community Internet users.
3) Actual usage = Actual users/Target population for DCC services (an actual user being one who accesses Internet at least once a month).
4) Average DCC usage rate = Total DCC usage time/Total available DCC time.
5) DCC density in rural areas = (Number of DCC´s in rural areas/Target population in rural areas) x 1 000 inhabitants.
6)DCC density in urban areas = (Number of DCC´s in urban areas/Target population in urban areas) × 1 000 inhabitants.

TELECOM STATISTICS – SEPTEMBER 2004

Telephone lines

Total number of telephone lines (includes public and private payphones)	**31,153**
Number of lines in Male', Villingili , Aarah, Hulhule & Hulhumale'	22,606
Number of lines in other inhabited islands	7,440
Resorts	918
Un-inhabited islands	189

Mobile

Total number of mobile subscribers	91,615
Mobile subscribers – Post-paid	15,531
Mobile subscribers – Pre-paid	76,084

Teledensity*

Teledensity – Fixed lines	10.76
Teledensity – Mobile	31.65
Overall teledensity – Fixed & Mobile lines	**42.41**

Internet

Internet subscription customers	1241
Leased lines	66
ISDN lines	217
ADSL lines	683

Card phones

Total card phones	936
Card phones in Male' & Villingili	147
Card phones in other islands	724
Private card phones	65

Paging customers	205

Telex lines	31

** Calculation based on projected mid-year population, MPND Stats YearBook 2003.*